

CLAIMS

1. A black liquor gun for feeding black liquor into a recovery boiler, the black liquor gun comprising a nozzle to be inserted through a wall of the recovery boiler into a furnace, **characterized** in that inside the black liquor gun, at least at the nozzle, there is a flow guidance element in the longitudinal direction of the nozzle and fastened to the black liquor gun, which flow guidance element reduces, in its location, the cross-sectional area of a black liquor flow channel inside the black liquor gun and provides an annular flow channel between the outer wall and the flow guidance element.

2. A black liquor gun as claimed in claim 1, **characterized** in that the flow guidance element has a substantially constant cross-section.

3. A black liquor gun as claimed in claim 1 or 2, **characterized** in that the flow guidance element has a cross-section diverging from a round shape and is twisted in the longitudinal direction around its longitudinal axis so that with respect to the outer wall of the black liquor gun, black liquor is brought to rotation at the flow guidance element.

4. A black liquor gun as claimed in any one of the preceding claims, **characterized** in that a separate flow guide is mounted around at least a part of the length of the flow guidance element so that with respect to the outer wall of the black liquor gun, black liquor is brought to rotation at the flow guide.

5. A black liquor gun as claimed in any one of the preceding claims, **characterized** in that as the black liquor gun is in its place, the flow guidance element extends outside the wall of the recovery boiler.

6. A black liquor gun as claimed in any one of the preceding claims, **characterized** in that the flow guidance element extends substantially to the end of the nozzle of the black liquor gun.

7. A black liquor gun as claimed in any one of the preceding claims, **characterized** in that the flow guidance element is fastened to the inner surface of the outer wall of the black liquor gun by blade-like fastening means.

8. A black liquor gun as claimed in claim 7, **characterized** in that in the longitudinal direction of the black liquor gun the blade-like fastening means are in an inclined position so that with respect to the outer wall of the black liquor gun, black liquor is brought to rotation at the fastening means.